Amendments to the Claims

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for producing hardened structural parts from sheet steel, wherein the hardened structural parts have cathodic corrosion protection, comprising:

shaping at least one shaped part made of sheet steel provided with a cathodic corrosion protection coating, wherein the cathodic corrosion protection coating is applied using a hot-dip galvanizing, wherein the coating is a mixture comprising zinc, and the mixture contains at least one element with affinity to oxygen in a total amount of 0.1 weight-% to 15 weight-% in relation to the entire coating, and wherein in the course of heating the sheet steel to the temperature required for hardening, a skin of an oxide of the ~~element(s)~~ at least one element with affinity to oxygen is formed on ~~its~~ a surface of the sheet steel thus imparting cathodic corrosion protection;

performing ~~any required~~ a final trim of the shaped part, ~~any required~~ punching, and/or the creation of a perforation pattern, prior to, during or after shaping of the shaped part;

heating the shaped part, at least over partial areas, under the admission of atmospheric oxygen to a temperature which permits austenizing of the steel material subsequent to performing ~~any required~~ the final trim, ~~any required~~ punching, and/or the creation of a perforation pattern on the shaped part; and

thereafter transferring the structural part to a mold-hardening tool and performing mold-hardening in the mold-hardening tool, wherein the structural part is cooled by the contact with and pressing by the mold-hardening tool and is hardened thereby;

wherein the shaping and trimming, as well as punching and arrangement of a perforated pattern on the structural part, are performed in such a way that the shaped part is embodied to be 0.5% to 2.0% smaller than the finished structural part.

Claim 2 (Canceled)

3. (Previously Presented) The method in accordance with claim 1, wherein magnesium and/or silicon and/or titanium and/or calcium and/or aluminum are employed as the elements with affinity to oxygen.

4. (Previously Presented) The method in accordance with claim 1, wherein 0.2 weight-% to 5 weight-% of the elements with affinity to oxygen are used.

5. (Previously Presented) The method in accordance with claim 1, wherein 0.26 weight-% to 2.5 weight-% of the elements with affinity to oxygen are used.

6. (Previously Presented) The method in accordance with claim 1, wherein aluminum is substantially employed as the element with affinity to oxygen.

7. (Previously Presented) The method in accordance with claim 1, wherein the coating mixture is selected in such a way that, in the course of heating, the coating forms an oxide skin of oxides of the element(s) with affinity to oxygen and the coating forms at least two phases, wherein a zinc-rich and an iron-rich phase are formed.

8. (Currently Amended) The method in accordance with claim 7, wherein the iron-rich phase is formed at a ratio of zinc to iron of ~~at most 0.95~~ 0.20 to 0.80 (Zn/Fe ~~≤ 0.95~~ = 0.20 to 0.80), and the zinc-rich phase is formed at a ratio of zinc to iron of ~~at least 2.0~~ 2.3 to 19.0 (Zn/Fe ~~≥ 2.0~~ = 2.3 to 19.0).

9. (Previously Presented) The method in accordance with claim 7, wherein the iron-rich phase has a ratio of zinc to iron of approximately 30:70, and the zinc-rich phase has a ratio of zinc to iron of approximately 80:20.

10. (Previously Presented) The method in accordance with claim 1, wherein the coating contains individual areas with zinc proportions > 90% zinc.

11. (Previously Presented) The method in accordance with claim 1, wherein the coating is designed in such a way that, at an initial thickness of 15 μm, the coating has a cathodic protection effect of at least 4 J/cm² after the hardening process.

12. (Previously Presented) The method in accordance with claim 1, wherein the coating with the mixture of zinc and the elements with affinity to oxygen takes place in the course of a passage through a liquid metal bath at a temperature of 425°C to 690°C with subsequent cooling of the coated sheet.

13. (Previously Presented) The method in accordance with claim 1, wherein the coating with the mixture of zinc and the elements with affinity to oxygen takes place in the course of a passage through a liquid metal bath at a temperature of 440°C to 495°C with subsequent cooling of the coated sheet.

14. (Previously Presented) The method in accordance with claim 1, comprising using a layer having a constant thickness over the structural part as the cathodic corrosion-protection coating.

Claim 15 (Canceled)

16. (Currently Amended) The method in accordance with claim 1, wherein an amount of time above the austenizing temperature is ~~up~~ less than or equal to 10 minutes.

17. (Previously Presented) The method in accordance with claim 1, characterized in that a holding temperature in the heating phase is maximally 780 to 950°C.

18. (Previously Presented) The method in accordance with claim 1, wherein a heat expansion of the finished shaped part following shaping and trimming, or punching, during the heating process is taken into consideration in the course of the dimensioning of the structural part, and in particular while shaping and trimming the structural part, in such a way, that at the end of heat expansion the structural part takes on a target dimension, or target geometric shape, or is slightly larger.

19. (Previously Presented) The method in accordance with claim 1, wherein in the course of mold-hardening the areas of close tolerance of the shaped structural part, in particular the cut edges, the shaped edge and the perforation pattern, are clamped free of warping by the molding tool halves, wherein shaped part areas located outside the areas of close tolerance can be subjected to a further shaping step in the hot state.

20. (Previously Presented) The method in accordance with claim 1, comprising pressing and hardening the shaped part with the molding tool halves substantially simultaneously over the full surface and with the same force.

21. (Withdrawn) A structural sheet steel part, comprising:

at least one shaped part made of sheet steel and coated with a cathodic corrosion-protection coating;

wherein the shaped part is heated, at least over partial areas, under the admission of atmospheric oxygen to a temperature which permits austenizing of the steel material, and the shaped part is thereafter transferred to a mold-hardening tool in which mold-hardening is performed, wherein the structural part is cooled by the contact with and pressing by the mold-hardening tool and is hardened thereby.

22. (Withdrawn) The structural sheet steel part in accordance with claim 21, wherein the sheet steel of which the structural part is made has a sturdiness of between 800 and 2000 MPa.

23. (Withdrawn) The structural sheet steel part in accordance with claim 21, wherein the corrosion-protection coating is applied using a hot-dip galvanizing method, and the coating comprises a mixture of zinc, and the mixture contains one or several elements with affinity to oxygen in a total amount of 0.1 weight-% to 15 weight-% in relation to the entire coating, wherein the corrosion-protection coating has an oxide skin of oxides of the element(s) with affinity to oxygen, and the coating has at least two phases, wherein a zinc-rich phase and an iron-rich phase are provided.

24. (Withdrawn) The structural sheet steel part in accordance with claim 23, wherein the corrosion-protection coating comprises magnesium and/or silicon and/or titanium and/or calcium and/or aluminum as the elements with affinity to oxygen in the mixture.

25. (Withdrawn) The structural sheet steel part in accordance with claim 23, wherein the iron-rich phase has a ratio of zinc to iron of at most 0.95 ($Zn/Fe \leq 0.95$), and the zinc-rich phase has a ratio of zinc to iron of at least 2.0 ($Zn/Fe \geq 2.0$).

26. (Withdrawn) The structural sheet steel part in accordance with claim 23, wherein the iron-rich phase has a ratio of zinc to iron of approximately 30:70, and the zinc-rich phase has a ratio of zinc to iron of approximately 80:20.

27. (Withdrawn) The structural sheet steel part in accordance with claim 21, wherein the structural steel sheet part contains individual areas with zinc proportions > 90% zinc.

28. (Withdrawn) The structural sheet steel part in accordance with claim 21, wherein the corrosion-protection coating, at an initial thickness of 15 µm, has a cathodic protection effect of at least 4 J/cm^2.

29. (Withdrawn) The structural sheet steel part in accordance with claim 21, wherein the structural steel part is formed out of a cold- or hot-rolled steel tape of a thickness of > 0.15 mm and within the concentration range of at least one of the alloy elements within the following limits in weight-%:

Carbon up to 0.4
Silicon up to 1.9
Manganese up to 3.0
Chromium up to 1.5
Molybdenum up to 0.9
Nickel up to 0.9
Titanium up to 0.2
Vanadium up to 0.2
Tungsten up to 0.2
Aluminum up to 0.2
Boron up to 0.01
Sulfur 0.01 max.
Phosphorus 0.025 max
the rest iron and impurities.